

REMARKS

The examiner is thanked for the performance of a thorough search. By this amendment, Claims 1, 3, and 25-27 are amended. Claims 2 and 12-24 are cancelled. No claims are added. Hence, Claims 1, 3-11, and 25-27 are pending in the application. The amendments to the claims as indicated herein do not add any new matter to this application. Furthermore, amendments made to the claims as indicated herein have been made to exclusively improve readability and clarity of the claims and not for the purpose of overcoming alleged prior art.

Each issue raised in the Office Action mailed May 16, 2005 is addressed hereinafter.

I. ISSUES NOT RELATING TO PRIOR ART

A. SPECIFICATION—ABSTRACT

The Office Action objected to the abstract as exceeding 150 words as provided in 37 C.F.R. 1.72 and MPEP 608.01(b). The abstract is amended herein to contain 143 words. Therefore, Applicant believes that the objection to the specification is fully addressed. Reconsideration is requested.

B. INTERVIEW

The Applicant appreciates the Examiner extending the courtesy of a telephone interview, which was held on August 16, 2005 with Applicant's representative Christopher J. Palermo. The following is a summary of the interview: the parties discussed FIG. 2 of Applicant's specification; FIG. 2 of Demirtjis; the claim amendments herein; and the arguments presented in an interview agenda that Applicant previously faxed to the Examiner. No agreement was reached with respect to allowability.

## II. ISSUES RELATING TO PRIOR ART

### A. CLAIMS 1-3, 6, 7, 9-11—DEMIRTJIS ET AL.

Claims 1-3, 6, 7, 9-11 stand are rejected under 35 U.S.C. § 102(a) as allegedly unpatentable over Demirtjis et al. U.S. Pat. No. 6,697,864 B1. The rejection is respectfully traversed.

Claim 1 is amended with the subject matter of Claim 2 amended and incorporated into Claim 1. Claims 2-11 are directly or indirectly dependent on Claim 1. Claims 25-27 are computer-readable medium or apparatus claims corresponding to Claim 1.

Demirtjis does not teach or suggest all features of amended Claim 1. FIG. 2 of Applicant's specification is a visual representation of one possible implementation of features from Claim 1 that may help understand differences of the approach of Claim 1 as compared to Demirtjis. In Applicant's FIG. 2, Supplicant 125 sends request 222 for a connection to a physical port to Authenticator 105, such as a switch in a packet-switched network, which sends a request 224 for authentication to RADIUS (AAA) server 135. If the supplicant is authenticated successfully, RADIUS server 135 sends a response 232 with authentication and authorization data to the Authenticator 105, which grants a port in message 238. **Further, Authenticator 105 forwards or "hands off" the authentication and authorization data to DHCP Relay Agent 103 in message 236.**

Thereafter, DHCP client 123 on the same host 122 as supplicant 125 sends a network address discovery message 242 to DHCP Relay Agent 103, which forwards the message 252 with the authentication and authorization data to the DHCP server 113. DHCP Server 113 replies with an address offer message 262, which the DHCP Relay Agent 103 relays in message 264. **In this arrangement, DHCP Server 113 offers an address only in response to**

**discovery messages that contain authentication and authorization data**, improving security of the system.

Claim 1 recites “said step of generating the second message [corresponding, e.g., to message 252] further comprises the step of sending a third message [corresponding, e.g., to message 236], from the authenticator process to the relay agent process, based on the first data [corresponding, e.g., to authentication and authorization data in message 232].” The third message is significant because it allows the authentication information to be shared with the discovery message, so that the relay agent process need not obtain authentication data through a second interaction with the AAA server or through re-entering the data.

Claim 1 recites “said step of generating the second message [e.g., 252] further comprises the step of sending a third message [e.g., 236], from the authenticator process to the relay agent process, based on the first data [e.g., data in message 232].” The third message allows authentication information to be shared with the discovery message so that authentication data is not re-entered.

In contrast, Demirtjis does not disclose generating a third message from an authenticator process to a DHCP relay agent process. Demirtjis does not separate the relay agent and authenticator processes and thus fails to disclose any information sharing between them. Referring to FIG. 2 of Demirtjis, for the connection server 110 to receive authentication data for the DHCP server 86, Demirtjis would have to be modified as taught only in Applicant’s disclosure. Demirtjis has no description of sending authentication data with a discovery message from an authenticator or relay agent to a DHCP server.

Claim 1 also recites that “the [DHCP] relay agent process is separate from the authenticator process” [on the intermediate device]. In FIG. 2, the authenticator 105 hands off authentication data to relay agent 103 so that a second authentication with the client is not

needed. Nothing like this is stated in Demirtjis. In FIG. 2 of Demirtjis, the Connection Server 110 authenticates the computer but does not hand off any authentication data to a relay agent.

Claim 1 also recites “receiving, at the intermediate device from the host, a first message [e.g., 242] for discovering a logical network address for the host.” For example, in Applicants’ FIG. 2, DHCP Relay Agent 103 receives a request from DHCP Client 123. Demirtjis states that authentication occurs with the Connection Server 110 (col 6, lines 46-54; col 8, lines 45-50), which then obtains the IP address from DHCP server 86. A message does not originate from the host 70 directly in order to contact the DHCP server.

Claim 1 also recites “generating a second message based on the first message and the first data.” For example, in FIG. 2, a second message 252 (the discovery message with authentication and authorization data) is generated with information from the first message 242 (the discovery message) and first data 232 (response with authentication and authorization data from RADIUS server). Information from the first data is passed to the DHCP Relay Agent 103 as the third message 236 (authentication and authorization data). In contrast, Demirtjis does not provide for providing authentication and authorization data to a DHCP server or relay agent. Demirtjis merely describes a DHCP server that responds to any request for an address lease, regardless of whether the request carries authentication information.

Fundamentally, because Demirtjis does not provide a mechanism or process to hand off received authentication data from an authenticator to a relay agent, so that the user is not required to re-enter the data into two different systems, and because the DHCP server in Demirtjis is not stated to restrict its replies to authenticated requesters, Demirtjis cannot anticipate or suggest the subject matter of Claim 1.

Each of the features discussed above for Claim 1 is present, by dependency, in Claims 3, 6, 7, and 9-11. Each of the dependant claims include the limitations of claims upon which they

depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Reconsideration of Claims 1, 3, 6, 7, and 9-11 is respectfully requested.

B. CLAIMS 12 AND 13—HOBBS; CLAIMS 14-21—FIJOLEK; CLAIM 23—  
BAIZE

For the purpose of simplifying the issues in the case, Claims 12-21 and 23 are canceled herein. Therefore, the rejections of Claims 12, 13, 14-21, and 23 are moot.

C. CLAIMS 22 AND 24-27—SCHUTTE ET AL.

For the purpose of simplifying the issues in the case, Claims 22 and 24 are canceled herein. Therefore, the rejection of Claims 22 and 24 is moot.

Claims 25-27 correspond in scope to Claim 1. The rejection is respectfully traversed.

Schutte et al. does not provide for “handing off” authentication and authorization data from an authenticator to a relay agent process as claimed in the “third message” of the amended claims. Further, Schutte et al. is fundamentally irrelevant because it illustrates a different operational context. Schutte et al. does not provide for authenticating a request for a switch port, as in the top half of Applicant’s FIG. 2, followed by granting a network address to an authenticated DHCP client, as in the bottom half of Applicant’s FIG. 2. Therefore, Schutte et al. does not provide the “first data” as claimed (authentication data provided by an authentication server to an authenticator), or a “third message” as claimed. Schutte et al. also does not disclose a router or switch acting as an authenticator, separate from a relay agent process.

For all these reasons, Schutte et al. lacks at least one element, limitation or step of Claims 25-27. Reconsideration of Claims 25-27 is respectfully requested.

D. CLAIMS 4 AND 5—DEMIRTJIS IN VIEW OF LLOYD; CLAIM 8—

DEMIRTJIS IN VIEW OF BAHL

Each of the features discussed above for Claim 1 is present, by dependency, in Claims 4, 5, and 8. Because each of the dependant claims 4, 5, and 8 includes the limitations of Claim 1, the dependant claims are patentable for at least the reasons given above with respect to Claim 1. Further, neither Lloyd nor Bahl cures the deficiencies noted above with respect to Demirtjis. Reconsideration of Claims 4, 5, and 8 is respectfully requested.

III. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firm check for the petition for extension of time fee is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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